To: Erin Foresman/R9/USEPA/US@EPA;[mkshouse@usgs.gov]; mkshouse@usgs.gov>[]
Cc: arstewar@usgs.gov[arstewar@usgs.gov]; krprince@usgs.gov>;[mhornber@usgs.gov]; mhornber@usgs.gov>;[tpresser@usgs.gov]; tpresser@usgs.gov>[]
From: "Samuel Luoma"
Sent: Tue 11/1/2011 8:14:23 PM
Subject: RE: Fw: BDCP - toxins appendix
snluoma@ucdavis.edu
http://escholarship.org/uc/jmie-sfews
http://www.epa.gov/region9/water/watershed/sfbay-delta/index.html
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Foresman.Erin@epamail.epa.gov
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Dear Erin,

There are overwhelming inadequacies in the BDCP analysis of selenium.

1. They fail to mention the Bay, where effects of Se are greatest.

2. They fail to even consider that a preferred alternative resembling a peripheral canal would involve more San Joaquin River inflow to the Delta and the Bay and less dilution in both from the Sacramento River. The effects analysis is in fact a take permit; take from selenium as a result of the way water from the two rivers is re-routed is an omission of the most serious kind.

3. They imply that there will be no issues in the SJR with Se because the water quality standard of 5 ug/L is being met. The problem with SJR is not with local toxicity but with the transport of elevated concentrations to the Delta and the Bay.

4. It is well known that the Bay, especially, is very sensitive to Se inputs and shows effects at concentrations well below the 5 ug/L level. Not mentioned.

5. They correctly cite the lower sensitivity of water column food webs to selenium, but completely omit the elevated sensitivity of the benthic food web. Sturgeon and migratory waterfowl that feed on benthos (scoter and scaup for example) are highly sensitive to very small changes in selenium, but these organisms are not mentioned that I could see. One could come away with the impression that the selenium problem is just with those silly little clams.

6. The food web retention and biomagnification of selenium is its greatest danger…again not mentioned; that is where the sturgeon, 2nd year splittail and diving water fowl get into trouble.

In the end the selenium analysis contains lots of interesting facts. But they are not adequately pulled together, and key concepts are completely omitted… leaving the perception, if not the reality, of a whitewash of this issue.

A detailed study of the mercury analysis yields the same conclusion. A superficial statement of a few aspects of the state of the science with major concepts and conclusions missing (e.g. human exposure to mercu4ry in game fish). They could use the recent report by SFEI on mercury and solutions to the mercury issue as a template if they really wanted to address this issue.

I have read the others in detail, but skimming suggests the conclusions will be the same. I don't know where the conclusions for the table came from???

Hope this helps.

Sam

Samuel N Luoma PhD

Research Professor

and

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From: Foresman.Erin@epamail.epa.gov [mailto:Foresman.Erin@epamail.epa.gov]
Sent: Monday, October 24, 2011 2:14 PM
To: mkshouse@usgs.gov
Cc: arstewar@usgs.gov; krprince@usgs.gov; mhornber@usgs.gov; snluoma@ucdavis.edu; tpresser@usgs.gov
Subject: Re: Fw: BDCP - toxins appendix

Hi Michelle,

Thank you so much for sending out this email. I've read through the toxins appendix/'evaluation' and I'm very interested in your and/or your colleagues opinions about the level of water quality analysis provided and what types of analyses are reasonable to conduct. For example, there are a few sections with statements similar to this one,

"Quantification of this effect [increased flows in Yolo Bypass and decreased assimilation capacity from operations] on methylmercury in the aqueous system is not possible given the lack of information on current concentrations and distribution of mercury throughout the Yolo Bypass system, residence times of preliminary proposal–related inundation of Yolo Bypass, the rate of methylmercury production, and transport out of the Yolo Bypass and into the Sacramento River." p. D-17.

I'm interested in understanding if there are models capable of providing a more robust analysis with available inputs/information.

Thanks in advance for any guidance you have and please don't hesitate to get in touch if you have questions. Thanks!

Erin

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http://www.epa.gov/region9/water/watershed/sfbay-delta/index.html

-----Michelle K Shouse <mkshouse@usgs.gov> wrote: -----

To: Theresa S Presser <tpresser@usgs.gov>, "Robin Stewart" <arstewar@usgs.gov>, Michelle I Hornberger <mhornber@usgs.gov>, snluoma@ucdavis.edu
From: Michelle K Shouse <mkshouse@usgs.gov>
Date: 10/24/2011 12:53PM
Cc: Keith R Prince <krprince@usgs.gov>, Erin Foresman/R9/USEPA/US@EPA
Subject: Fw: BDCP - toxins appendix

Hi Ladies,

I received the e-mail below from Karen Schwinn at EPA. She is concerned the BDCP Effects Analysis document attached is not as detailed as it should be. If possible, could you take a look at the document and perhaps send along some suggestions to Erin Foresman at EPA? If there are others that you think could provide some guidance, please let me know and I will forward the request to them. If you can, please send Erin your suggestions by the end of this week (Oct. 28) as she needs to send them on early next week.

If you have any questions, you can reach Erin at Foresman.Erin@epamail.epa.gov.

Thanks!
Michelle
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Michelle K. Shouse, Biologist
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----- Forwarded by Michelle K Shouse/DO/USGS/DOI on 10/24/2011 12:41 PM -----

From:
Schwinn.Karen@epamail.epa.gov

To:
Eric Reichard <egreich@usgs.gov>, rfujii@usgs.gov, "Shouse, Michelle K" <mkshouse@usgs.gov>

Cc:
Foresman.Erin@epamail.epa.gov

Date:
10/21/2011 03:48 PM

Subject:
Fw: BDCP - toxins appendix

Eric, Roger, and Michelle -

We just got this document (attached) from DOI. Its an appendix to the BDCP Effects Analysis prepared by the new consultant, ICF. This one is supposed to evaluate the contaminant effects on T&E species from the proposed BDCP actions (considering only the most extreme conveyance option, plus some range of habitat restoration). The constituents discussed in the document include selenium, mercury, ammonia, copper and pesticides.

From my non-scientific read, it seems pretty darn superficial - it basically says there will be less dilution but likely won't matter to fish. We are writing comments, pointing out some obvious things and questions we need
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addressed in the NEPA and/or 404 process. What's more difficult is advising them on how they might approach a deeper analysis. Do your folks have any time to look at this? Federico wants comments by noon on November 1 - though after that there may be an opportunity to interact with ICF directly. I checked with David Nawi on USGS involvement and he welcomes it, though I guess hasn't sought it in this particular case, given your resource constraints.

Erin Foresman, on our staff (located in Sacramento) is working on our comments. Feel free to contact have your folks contact her directly if they are able to assist. Thanks! - Karen

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[attachment "App D_Toxins_101411.pdf" removed by Erin Foresman/R9/USEPA/US]

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